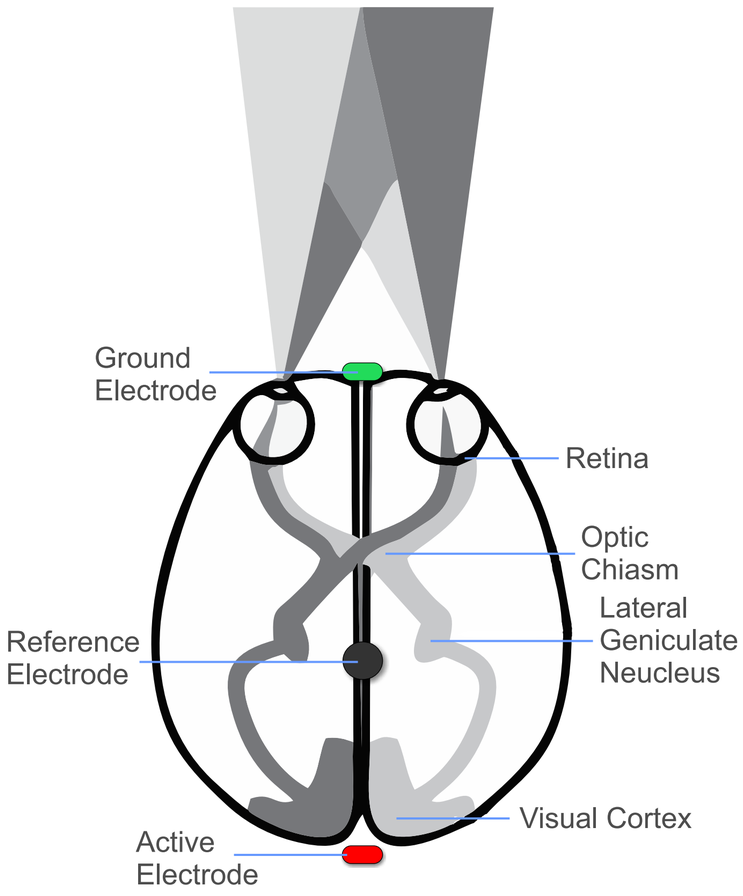
Fourier Analytics - the Secret Sauce behind EvokeDx

10 Hz
icVEP check stimulus frequency
from OLED display



icVEP isolated-check stimulus pattern contrast varies sinusoidally at **10 Hz**

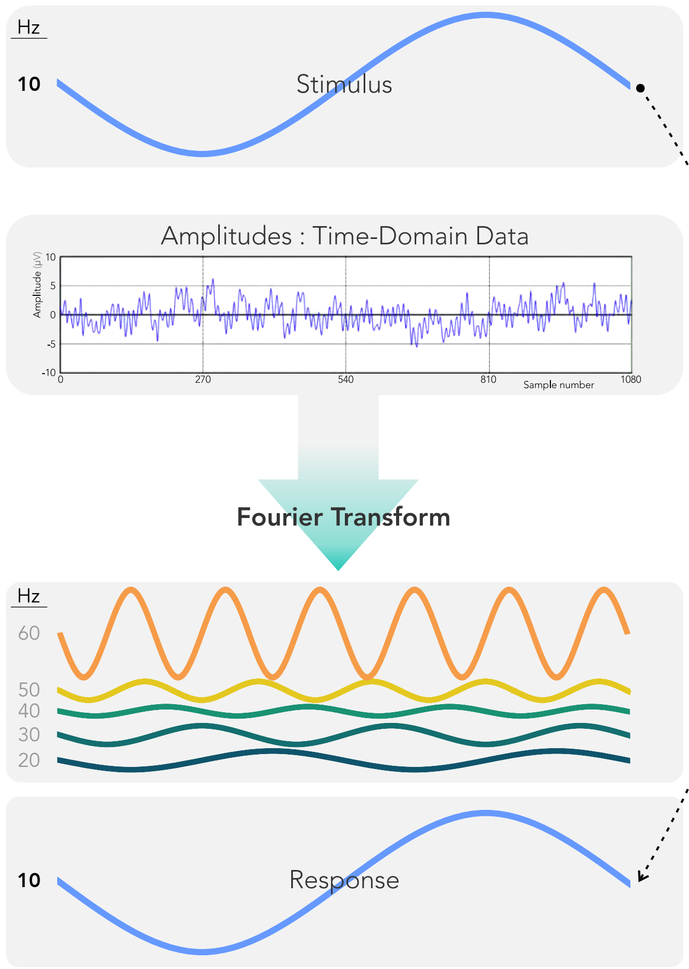
Time-domain data collected are a complex waveform which includes a spectrum of background brain activity ("noise") which obscures the **10 Hz** response

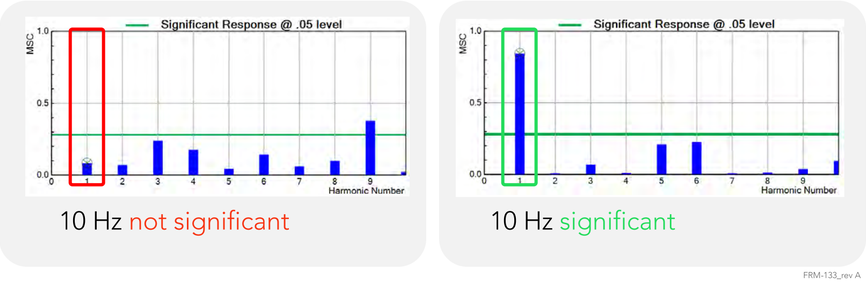
Recorded time-domain data is converted to the frequency-domain using a **Fourier transform** to deconstruct the complex waveform into its frequency components

From the spectrum of frequency components revealed, irrelevant frequencies are filtered out.

The **10 Hz** "Response" corresponding to the **10 Hz** stimulus is isolated.

The 10 Hz response is tested statistically with sophisticated techniques, including "Coherence" (MSC) to assess if the response is significant (unaffected), how significant, or not significant (loss of function)

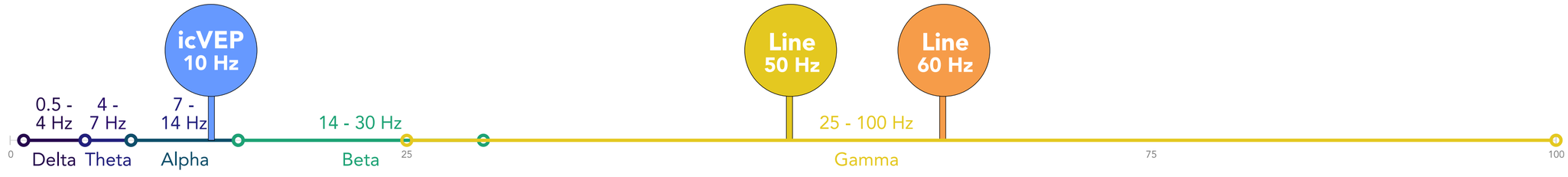




10 Hz not significant

10 Hz significant

FRM-133_rev A



The Spectrum of Background Brain Activity = "the Noise"
illustrated from 0.4 to 100 Hz